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The U.S. Merchant Fleet: Patterns for the Seventies (U)

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THE U.S. MERCHANT FLEET--PATTERNS FOR THE SEVENTIES (U)

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The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract of

THE U.S. MERCHANT FLEET--PATTERNS FOR THE SEVENTIES

An analysis of recent U.S. maritime legislation in order to predict the possible effect it may have on our merchant fleet growth patterns for the seventies. Major attention is devoted to the Merchant Marine Act of 1970 which the Administration and Congress hopes will halt the continuing decline of the U.S. merchant fleet. The investigation is limited to the shipbuilding industry and is concerned primarily with government incentives, provided to both shipbuilders and shipowners, designed to stimulate new building programs. This study finds that the U.S. merchant fleet will experience a healthy growth during this decade as a result of new maritime legislation. The prospective fleet will depend heavily upon standardized ship designs and will contain an ever increasing percentage of large containerized carriers. The study concludes that the Merchant Marine Act of 1970 will be a giant step toward restoring the nation to the ranks of a first-rate maritime power. Recommendations to help promote more shipbuilding and to provide expanded markets include extending construction subsidies to certain ships that may not initially operate in U.S. ports and creation of a national marketing program aimed at increasing the U.S.-flag share of foreign trade.

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THE U.S. MERCHANT FLEET--PATTERNS FOR THE SEVENTIES

CHAPTER I

INTRODUCTION

Background. The story of the gradual decline of the United States merchant fleet has been told and retold. Yet, the fleet continues to shrink. The United States has dropped from a total of 3,696 merchant ships at the close of World War II to around 900 ships in our privately owned merchant fleet. Of the 650 ships involved in foreign trade, some 400 were built during World War II and will probably not be operating after 1974.[1] Ships flying the American flag are currently carrying only about six percent of U.S. cargo moving in foreign trade, down from eleven percent a decade ago.

History has shown that no nation has achieved greatness nor maintained it without also being a major maritime power. Dr. Edmund A. Walsh, Vice President of Georgetown University and a recognized authority on maritime matters stated back in 1934:

> . . . History is . . . eloquent in demonstrating that any nation which takes the easy way of permitting its commerce to be carried by foreign flag ships--which rents the service and space it is too lazy or too short sighted to provide--is embarked on a policy of dependency that has ended every time with the nation in question becoming a second-rate power.[2]

The Problem. Recently, the Administration and Congress have examined and initiated new action in an attempt to halt the continuing decline of the U.S. merchant marine. The purpose of this study is to conduct an in-depth investigation of recent U.S. maritime legislation in order to predict the possible effect it may have on our merchant fleet growth patterns for the seventies. Specifically, this legislation consists of the Merchant Marine Act of 1970 (PL 91-469) enacted on 21 October 1970.

The magnitude of problems in the maritime industry today precludes a thorough study of all phases in this paper. Accordingly, this investigation will be made from the standpoint of the shipbuilding industry and will be concerned primarily with government incentives, provided to both shipbuilders and shipowners, designed to stimulate new building programs. Trade policies, labor relations, flags of convenience, military sealift and domestic politics represent some areas that cannot be considered although they have a direct bearing on the future of the industry.

Organization of the Study. In the belief that a knowledge of the past is necessary to an understanding of the future, Chapter II traces the evolution of past policy and legislation from the colonial period to the present.

Chapter III examines, in depth, President Nixon's new maritime program as embodied in the Merchant Marine Act of 1970.

Chapter IV describes the prospective fleet of the seventies and reviews recent developments in the shipbuilding industry.

Chapter V contains conclusions and recommendations.

CHAPTER II

EVOLUTION OF PAST POLICY AND LEGISLATION

Early History. From the beginning merchant ships have played an important part in the history of this country. The American colonists were skillful sailors, shipbuilders, and shrewd traders. They invented new types of ships, the schooner and the clipper, faster and more beautiful than any sailing ship known before.[1]

New England was ill suited for agriculture, and the sea and trade became the national pursuit of the Colonies. The Yankees prospered, and the Colonies grew under the protection of seventeenth century English navigation laws. Prior to the American Revolution, colonial trade with the British West Indies alone amounted to $18 million a year.[2] This prosperity began to contribute to growing rivalry with the British. However, over 30 oppressive British laws and acts in a 120 year period failed to restrain the aggressive and prosperous growth of American shipping.[3] The shipbuilding industry had flourished to the point that at the outbreak of the Revolutionary War over one-third of the ships in the British Merchant Fleet had been constructed in colonial shipyards.[4]

The merchant ships of the Colonies, hastily fitted as privateers, were an active factor in the struggle for

independence. Though Americans of the colonial period won success as shipbuilders and seamen, the effect of the Revolution was such that our 900 ships were lost and most of our overseas carrying trade fell into the hands of British shipowners.[5] Thus the American merchant fleet had almost disappeared.

At the end of the Revolutionary War in 1783, the Colonies still had the shipbuilding capability and the raw materials for ship construction. Prompted by freedom from any restrictions of foreign trade, they began rebuilding the maritime industry. The initial act of the first Congress under the new Constitution contained a clause allowing a discount of 10% of the tariff duties on all goods imported in ships built and owned by American citizens.[6] Other acts, passed by this same Congress, placed highly discriminating customs and tonnage duties on foreign flag cargoes from the East and served to bar alien carriers from American domestic navigation. This legislation helped create an era that saw the imports and exports carried in American ships rise from 23% in 1789 to 90% by 1795.[7]

The years between 1800 and 1840 have been referred to as "the most glorious period in American maritime history."[8] Congress passed no fewer than fifty tariff or other laws intended to protect American shipbuilding and shipowning. American shipping responded to the government encouragement

by building a merchant fleet that almost equalled the British in size and far excelled them in performance.

The "most glorious period" continued until 1840 when the commercial shipping boom came to an end. One of the contributing factors to the decline was the advent of the steamship. American shipowners chose, however, to ignore the potential of steamships, although the S.S. Savannah had made a successful crossing of the Atlantic in 1819.

Decline of the Merchant Fleet: 1840-1916. Inevitably, sail was gradually replaced by iron-hulled steamships, and the American merchant marine slipped into a decline from which it has never completely recovered except for brief wartime periods.[9] America initially lost her lead, for she lacked the abundant coal close to the sea and the skilled iron workers which Great Britain had. Furthermore, the time and money of explorers and investors were being spent in building railroads and opening up the west.[10]

The Civil War seriously damaged the already ailing shipping assets and many vessels were lost or sold abroad. Over one half of the American ocean fleet was lost in Civil War action. Postwar high prices and taxes hampered efforts toward revival, and England took the lead in building iron and steel hulled vessels powered by steam and using the more efficient screw propeller in place of paddlewheels.[11]

The government attempted to help merchant shipping by granting contracts for carrying mail or by permitting the import of shipbuilding materials without tariffs. Nevertheless, at the end of the nineteenth century only one American trans-Atlantic shipping line was in operation.[12]

In the "most glorious period" the U.S. merchant marine had carried as high as 90% of the country's foreign trade, but the percentage just prior to World War I had dropped to a meager eight percent. This situation became even more serious as the ships of warring nations were withdrawn from our services and the United States was left with goods piled up at ports. The resultant catastrophy to American industry and commerce incited Congress to take remedial action.

Shipping Act of 1916. The Shipping Act of 1916 permitted the government to buy, build, lease and operate merchant ships. A new government agency, the U.S. Shipping Board, was given the authority to set up a corporation to build ships. The Emergency Fleet Corporation built 2,318 ships in 341 emergency shipyards during the period of 1918 to 1922, but most of them were delivered after the war was over.[13] Despite crash programs in ship construction, the bulk of American troops and equipment was transported overseas in foreign bottoms. In September 1918, the British alone carried over one million tons of American supplies.[14]

Merchant Marine Acts of 1920-1928. The new merchant fleet had been designed hurriedly under emergency conditions, and many of the ships were not suited to peacetime use.[15] In 1920, a new Shipping Act was passed which permitted government operation in peacetime of this war-built fleet. The Merchant Marine Act of 1928 provided for the sale of this fleet to commercial interests. In an effort to thwart rigorous foreign competition and high operating costs, the Act of 1928 also liberalized and increased the construction loan provisions and provided thinly veiled subsidies in the form of mail contracts. The Merchant Marine Acts of 1920 and 1928 provided some stimulus to cure the ills of the maritime industry; however, due primarily to construction costs, higher wages and fierce competition, the U.S. merchant fleet fell back again to a dangerously low level.

Merchant Marine Act of 1936. The Merchant Marine Act of 1936 set up a United States Maritime Commission of five members and laid out a long-range program of shipbuilding designed to build 500 new ships in the next ten years. It further provided for government construction and operating subsidies to shipping lines.[16] These subsidies were designed to equal the difference between the cost of building and operating ships under the American flag.

This important Act, sometimes called the "Magna Carta" of the merchant marine, defined the national policy of the United States with regard to the merchant marine in Section 101 of the Act:

> It is necessary for the national defense and development of its foreign and domestic commerce that the United States shall have a merchant marine (a) sufficient to carry its domestic water-borne commerce and a substantial portion of the water-borne export and import foreign commerce of the United States and to provide shipping service on all routes essential for maintaining the flow of such domestic and foreign water-borne commerce at all times, (b) capable of serving as a naval and military auxiliary in time of war or national emergency, (c) owned and operated under the United States flag by citizens of the United States insofar as may be practicable, and (d) composed of the best equipped, safest, and most suitable types of vessels, constructed in the United States and manned with a trained and efficient citizen personnel. It is hereby declared to be the policy of the United States to foster the development and encourage the maintenance of such a merchant marine.[17]

World War II. It was most fortunate that prior to the outbreak of World War II the foundation had been laid for a gigantic shipbuilding program. Even before the program was well underway, war broke out in Europe and once again a tremendous demand for shipping arose. With the aid of experienced shipyard management and employees, new shipyards were built and thousands of new workers were trained. By concentrating on a simple standard type of vessel, the Liberty ship, the yards were able to use mass production methods of

building.[18] The building time to complete a new mass produced Liberty ship reached the unbelievable low of forty days. From 1942 to 1945, some 5,592 merchant ships were built of which 2,701 were Liberty ships, 414 were the faster Victory type, 651 were tankers, 417 were standard cargo ships and the remaining 1,409 were military or minor types.[19] One of the final blows to the Nazi submarine menace was when the United States started producing these ships faster than they could be sunk.

In February 1942, the War Shipping Administration was established and took over the direction of all ship operations. Included in this group were ships taken over from private operators in both domestic and foreign trades. These ships, coupled with over 5,000 new merchant type vessels turned out in slightly over four years, carried four-fifths of the supplies for the entire war effort.[20]

Merchant Ship Sales Act of 1946. The end of the war left the United States with an overabundance of ships and shipbuilding facilities. Consequently, the government sought to restore the merchant fleet to private control as quickly as possible and also arrange for the sale of the excess war-built ships. The Merchant Ship Sales Act of 1946 directed the Maritime Commission to dispose of the surplus fleet in a manner that would benefit the U.S. merchant marine.

This act also provided for charter of vessels by U.S. citizens, placement of ships into the "Reserve Fleet" and firm pricing policies on the sale of vessels. American shipowners purchased about 1,300 ships, about 2,000 were placed in the reserve fleet and the remainder were sold to foreign interests.[21]

The Korean War. With the outbreak of the Korean War the United States once again found the degree of readiness in the merchant fleet at an unacceptable level. In early 1950, President Truman's Reorganization Plan 21 abolished the independent Maritime Commission and shifted its responsibility to a five-member Federal Maritime Board and a Maritime Administration within the Department of Commerce.[22] These new organizations were charged with the same responsibilities contained in the Merchant Marine Act of 1936. Unfortunately, the Korean War broke out before these new agencies had organized to cope with the emergency measures needed to meet sudden heavy demand for shipping.

Since the old War Shipping Board had been dissolved in 1946, Congress hastily created the National Shipping Authority under the jurisdiction of the Maritime Administration to assume control of all shipping functions in support of the Korean War. In June 1950, the commercial fleet numbered 1,251 ships totalling 9.3 million gross tons. By the end

of 1951, the merchant fleet had expanded to 1,955 ships with an aggregate 15.3 million tons.[23] This buildup was possible due to the withdrawal of over 500 ships from the World War II reserve fleet that had not yet become obsolete.

Decline in the Fifties. Except for the construction of some 35 fast new "Mariner" type cargo vessels, the Korean War did not spur much new shipbuilding activity. Consequently, the situation in U.S. shipyards had reached a desperate state in 1954, when not a single new oceangoing dry cargo ship had been ordered for more than one and a half years.[24] Operating costs, foreign competition and disinterest on the part of the American people all contributed to the decline. Air, rail, and truck transportation, which greatly expanded during the previous war, offered reduced rates and diminished the requirements for ocean shipping.[25]

The government again, in the midfifties, recognized the need to stimulate the maritime industry. Under President Eisenhower's direction in 1955, government assistance was given through subsidies to ships operating in the foreign trade of the United States. Additional incentives provided government insurance on loans obtained from private companies to aid in vessel construction. An arrangement was also agreed upon whereby the government would accept old tankers for trade-in credit on the construction of new ships. The

program eventually provided for the construction of 179 new ships as replacements for 293 aging vessels at a government subsidy cost of $1.3 billion.[26]

Numerous attempts have been made to analyze the rather lethargic state of shipbuilding in the fifties. The answer seems to be that the American operators were still depending upon the World War II built ships that had been purchased at modest prices after the end of the war. While this did in fact modernize the fleet at that point in time, it also precluded the building of even newer and more advanced ships such as were on the ways of many foreign nations.[27] Thus, the post-Korean War decline was destined to continue into the sixties.

The Vietnam War. In the midsixties the United States was again faced with a challenge to transport men and supplies to a war zone, this time over an 8,000 mile sea route to Vietnam. Once again, for the fourth time in this century, the U.S. merchant marine was unprepared. Excluding the Military Sea Transportation Service (MSTS) ships, the total U.S. flag privately owned ships consisted of 970 ships, including 549 dry cargo, 262 tankers, and 141 other types.[28] Almost half of these ships were pushing 20 years of age. For the first time the World War II reserve fleet, which still consisted of some 1,300 ships, was not quick to respond.

Approximately 800 of the reserve ships were awaiting scrapping and the remainder were considered to be too obsolete to be of use. Eventually, approximately 170 ships were withdrawn from the reserve fleet, repaired, and assigned to private shipping companies.[29]

In a lecture delivered to the students of the Naval War College on 9 December 1971, General Gilbert L. Curtis, Chief of Staff, Military Airlift Command, estimated that over 95% of all supplies sent to Vietnam have gone by sea-lift.[30] Due to the limited U.S. merchant marine assets, over one-third of these goods had to be chartered out to foreign flag vessels.

Present Status--1970. Unlike previous wars, the Vietnam conflict failed to provide the United States with the incentive to build a new merchant fleet. Helen D. Bentley, Chairman of the Federal Maritime Commission, summed up the alarming facts in a lecture delivered at the Naval War College on 12 May 1970:

> Over two thirds of our privately owned merchant ships are pushing 25 years of age, or over. More than 600 of the 975 privately owned ships under our flag are heading straight for the shipwreckers. . . . Of our better than $70 billion in export-import trade more than $40 billion of which is oceanborne--we carry a bare six percent in ships of our own flag.[31]

Can this trend be reversed? The Merchant Marine Act of 1970, discussed in depth in the next chapter, is the latest

attempt by the Administration and Congress to salvage a floundering industry (see Appendix, Figures 1, 2).

Summary. This chapter, through a review of past major policies and legislation, has traced the evolution of the U.S. merchant marine from its colonial beginnings to the present in the belief that a knowledge of the past is essential to an understanding of future legislation and trends. Since its birth, the United States has depended upon a healthy merchant fleet; however, as pointed out this fleet has often had to resort to "crash" shipbuilding and acquisition programs to meet the challenge.

From the "most glorious period" in 1840, the U.S. merchant marine declined steadily. This decline continued until the outbreak of World War I when emergency measures were taken to allow the government to buy and build new ships. Unfortunately, hundreds of these ships arrived too late to be of use in the war. Decline again set in after World War I and became the rule until World War II provided the incentive to build another strong fleet. These ships, built in the forties, are still the backbone of our fleet today. Since World War II other seafaring nations have made tremendous advances in modernizing their merchant fleets, while the U.S. fleet has dwindled to a few hundred ships.

In an effort to smooth out the ebb and flow of ship-building the government has enacted into the law the Merchant Marine Acts (1916, 1920, 1928, 1936). The continued peace-time decline of today's fleet indicates that new action is needed to rebuild a strong and effective merchant marine.

CHAPTER III

THE MERCHANT MARINE ACT OF 1970

Introduction.

> The Maritime Industry of the United States has been permitted to decline to a point at which the nation's defense and economic welfare are imperiled. . . . We must set as our goal a sharp increase of the transport of U.S. trade aboard American flagships. The present rate is 5.6 percent; by the mid-seventies, we must see that rate over 30 percent and the growth accelerating. . . . I support a building program to accomplish that objective.[1]
>
> --Richard M. Nixon - 1968

Merchant ships are indispensable to the economy of a powerful trading nation like the United States, not only in war but also in peacetime. The increased complexity of today's world, both militarily and economically, precludes the United States from ever again relying upon wartime build-ups to revitalize the merchant marine.

Militarily, as the strongest power in the non-Communist world, the United States has major responsibilities and far-flung interests. This country now has treaty relationships with, or commitments to the defense of, some 44 countries throughout the world. The strategic mobility concept and the Nixon Doctrine depend heavily upon this nation's ability to project instantly U.S. forces and materials to any part of the globe. Except for the initial contingency, which may

be transported by airlift, the U.S. merchant marine will have to be ready to carry up to 95 percent of the men and war materials. Compounding this problem is the fact that the National Defense Reserve Fleet (NDRF), which has helped the United States buy time in the past, will have disappeared as a source of augmentation in 1978.

Economically U.S.-flag merchant shipping contributes significantly to the balance of payments and is an important employer, taxpayer and customer of U.S. goods. In this period of balance of trade deficits, a strong merchant marine takes on even added importance. The U.S. Commerce Commission has predicted that by 1980 U.S. exports and imports will reach $90 billion. This growth in foreign trade will require a parallel growth in U.S. shipping capacity to ensure efficient shipment of these goods at reasonable cost.

In early 1969 President Nixon forwarded to the Congress a new legislative program calling for the construction of 300 new cargo ships suitable for carrying an increased portion of the U.S. export-import trade. The President's plan was coupled to a new subsidy program and a substantially increased research and development program.[2] The important features of the new Presidential program were defined in the text of the Nixon Merchant Fleet Message to Congress on 23 October 1969.

The Shipbuilding Industry. The new shipbuilding program is designed to make it possible for shipbuilders to build more ships while encouraging them to hold down the cost of each vessel. Implicit in this program is a substantially improved system of construction differential subsidies. These subsidies will allow our shipbuilders to sell their ships at world market prices for use in U.S. foreign trade. The important features of the new subsidy system, all of which have subsequently been incorporated into the Merchant Marine Act of 1970, are as follows:

1. Industry will be able to build more ships over the next ten years, moving from the present subsidy level of about 10 ships a year to a new level of 30 ships a year.

2. The percentages of total costs which are subsidized will be reduced. The present 55% of a builder's total expenses for a given vessel will be reduced to 45% in fiscal year 1971. That percentage should be reduced by two percent in each subsequent year until the maximum subsidy payment is down to 35% of total building expenses.

3. Construction differential subsidies will be paid directly to shipbuilders rather than being channeled through shipowners as is the case under the present system. A direct payment system is provided to encourage builders to improve designs, reduce delays and minimize costs.

4. The multiyear procurement system which is now used for other government programs will be extended to shipbuilding. Under this system the government makes a firm commitment to build a given number of ships over a specified and longer period of time, a practice which will allow the industry to realize important economies of scale and to receive lower subsidies.

5. The increased level of ship construction will require a corresponding increase in the level of federally insured mortgages. Accordingly, the ceiling on our present mortgage insurance program will be raised from $1 billion to $3 billion.

6. Construction differential subsidies will be extended to bulk carriers, ships which usually carry ore, grain, or oil and which are not covered by our present subsidy program.

7. A commission will be established to review the status of the American shipbuilding industry, its problems and its progress toward meeting the challenge set forth. The commission will report its findings within three years and recommend any changes in government policy it considers desirable.

The President concluded his message with the following statement: "It is my hope and expectation that this program will introduce a new era in the maritime history of America, an era in which our shipbuilding and ship operating

industries take their place once again among the rigorous, competitive industries of this nation."[3]

Review of the Program. Legislation to implement the program went to Congress in December 1969. Few changes were sought in the legislature and even those who suggested changes gave strong support to the legislation in their testimony. Significant support came from shipbuilders and their suppliers, shipowners, ship operators and the Maritime Trade Unions. Prominent among this group was the American Institute of Merchant Shipping whose members control over six million deadweight tons of commercially owned shipping under the U.S.-flag. The U.S. Navy strongly endorsed the new shipbuilding program since it must depend heavily upon the U.S. merchant fleet to transport war materials and men. The bill in its final form was reported out of the special House-Senate Conference Committee on 30 September 1970 and was signed into law by President Nixon as the Merchant Marine Act of 1970 on 21 October 1970.

This new Merchant Marine Act has largely superseded the controversial and largely ineffective Merchant Marine Act of 1936. That Act, forged in the years of depression, provided government help to only a few select individuals and corporations. The new act opens wide the doors of opportunity to all Americans who think they could be successful in the ocean

shipping business, and who are willing to risk capital to do so.[4]

In its key provision, the bill underwrites the construction of some 300 new cargo ships for the U.S. merchant fleet over the next ten years. The government's share of the cost of these ships will probably amount to a figure in excess of $3 billion for construction-differential subsidy.[5] It should be pointed out here that this provision is already headed for trouble and thus will be specifically addressed in the next chapter along with a prediction as to the specific mix of these 300 ships.

Under the new program the construction-differential payments by the government are scheduled to be reduced from 55% of vessel construction costs to 45% in fiscal year 1971, then two percent less each year so that by 1976 the total allowable subsidy will be 35% of construction costs. Recent studies on construction and techniques have indicated that this is feasible if large orders for ships are forthcoming. Production of standardized ships should also help achieve this goal. President Nixon has stated, that if this challenge cannot be met, a Presidential committee will examine the facts and make recommendations relative to the future of the program.[6]

One of the most significant actions of the new law is the way in which the government's construction subsidy will

be awarded. Unlike the 1936 Act, where only the berth lines could apply for subsidy, any shipyard in the United States or any citizen ship purchaser may make application for construction-differential subsidy. Whether the yard of the purchaser is the applicant the subsidy is to be paid directly to the shipyard for the construction or conversion of vessels for foreign trade.[7] It is believed that direct subsidy to the yards will give them more incentive to bring costs down and promote their own designs for ships.

The multiyear contracting method, now practiced by the Navy, is designed to issue firm commitments to shipyards. This enables them to have a backlog of orders and plot future work loads. Because of these mass production methods the government gains the benefit of lower unit prices per ships.[8] This should provide the incentives for shipbuilders to plan ahead and make the additional capital investment necessary to upgrade and modernize the shipyards.

Another aid to operators in obtaining new ships has been the Ship Mortgage Insurance which provides an inducement for private investment capital to channel monies into ship mortgages at lower interest rates.[9] The government will guarantee both principal and interest on ship mortgages. The anticipated increased construction level will necessitate raising the ceiling on the present federal mortgage program to $3 billion.

An important incentive not previously discussed should be injected here, for it provides the greatest inducement for building new tonnage in U.S. yards. The new law extends tax deferments on construction funds to previously nonsubsidized operators, including vessel operators on the Great Lakes and those that serve the noncontiguous trade routes to Alaska, Hawaii, Puerto Rico and Guam. Towboat, barge and fishing vessel operators are included among those eligible to make use of these funds. Earnings of a shipping company can be placed in escrow for new ship construction before income taxes. That income, if plowed back into the account, will be tax free.[10]

The funds necessary to support these various programs, including all subsidy payments, are appropriated each year by Congress under the authority of Section 209 of the Merchant Marine Act of 1936. Individual funding arrangements and subsidy payments are controlled and monitored by the U.S. Maritime Administration (MARAD). The first year appropriations for fiscal year 1971 amounted to $485.8 million. In August 1971, President Nixon signed legislation authorizing a record $507.6 million for the second year's expenditures. The bulk of this appropriation is earmarked for construction and operating subsidies while over $25 million will be used for research and development.[11]

It is still too early to predict how accessible these funds will be in the future. It is safe to assume that there will always be growing competition from other high priority domestic programs. Additionally, as the new fleet grows, competition for subsidies and cargo will surely arise from other modes of transportation such as air and rail. This problem will be alleviated somewhat due to the projected growth of intermodal transportation systems where goods travel door-to-door by way of all transportation modes.

Summary. The Merchant Marine Act of 1970 seems to be extremely practical and tuned to the needs of the 1970's. The bipartisan nature of support and the ease in which it cleared both the Senate and House of Representatives are indicative of the Congressional concern to replace aging vessels and reorganize existing shipping regulations and subsidies. Although this study is primarily concerned with the shipbuilding industry, it is apparent from the complexity of the act that the government recognizes that no progress can be made in rejuvenating the merchant fleet without the cooperation of the shipbuilders, the shipowners and the maritime labor force.

The initial response has been encouraging; however, since the act is still only 18 months old there are, needless to say, several unanswered questions. Of paramount concern

will be the ability of U.S. operators to show they can increase substantially their share of U.S. foreign trade to attract the capital they need to build the new ships.

The next chapter will address growth patterns and provide a profile of the fleet for the seventies based on past history and recent developments since the passage of the Merchant Marine Act of 1970.

CHAPTER IV

MERCHANT SHIPS FOR THE SEVENTIES

Introduction. Although the Merchant Marine Act of 1970 is still in its infancy, there has been enough reaction from the government, shipbuilders and the shipping industry to project with some degree of accuracy the status of the U.S. merchant fleet at the end of this decade. Most officials are optimistic about the future but admit that a halt to the decline will no longer occur until the midseventies, as the first ships probably will not appear until late 1973. This chapter will present the ship designs most likely to be required during the seventies, the prospective fleet, and an analysis of recent developments that may tend to alter somewhat the original concepts of the new shipbuilding program.

The Ships. Since the new program encourages the use of standard ship designs suitable for multiship, multiyear production, Maritime Administration officials announced in June 1969, that a research program would be established to determine the types of ships and the fleet mix that would be required to carry our foreign trade. From special studies conducted within MARAD, together with judgments expressed by commercial trade route analysts, the ship designs most likely to be required during the seventies have been identified. Specifically they are:

1. A single screw container ship capable of carrying 1,500 to 1,700 twenty-foot equivalent containers at 24 knots. Capabilities should be available on specific trades to carry some general cargo.

2. A large twin screw container ship capable of carrying approximately 2,000 twenty-foot equivalents at up to 28 to 30 knots.

3. A general purpose cargo ship of about 15,000 to 20,000 deadweight tons cargo capacity and a speed of 20-24 knots.

4. A utility cargo ship of from 25,000 to 30,000 cargo deadweight and a speed of 16 knots capable of carrying dry bulk cargoes in addition to breakbulk. An important criteria for this ship is its cost. It must be inexpensive to acquire and operate if it is to compete with foreign "Liberty ship" replacements.

5. An Ore/Bulk/Oil carrier of 60,000 to 70,000 cargo deadweight and a speed of about 16 knots. This ship should be offered in a large range of product options from a special configuration for single products to a more flexible arrangement such as Ore/Bulk/Oil.

6. A large tanker of approximately 120,000 cargo deadweight and a speed of 16 knots suitable also for Ore/Bulk/Oil option.

7. A barge carrier, which is a radical departure from convention and has yet to be fully evaluated, although several versions are currently in operation. The demand for this ship is presently uncertain as an industry standard, although it appears to have definite advantages over container ships and general cargo ships in specific trading situations.[1]

The Prospective Fleet. After determining through initial studies which types of ships would be competitive in various trade areas carrying the full spectrum of available commercial cargo, an analysis was required to ascertain the relative numbers of these ships required within the three hundred ship program. To achieve this end, one study contract was awarded to Bath Iron Works Company and another contract with an identical mission was awarded to the Newport News Shipbuilding and Dry Dock Company. From these estimates, Bath and Newport News projected the merchant fleet of 1982.

1982 Projections of the U.S. Merchant Fleet

Ship Type	Newport News Estimate	Bath Estimate
1. Container	22	65
2. General Cargo	173	15
3. Utility Cargo	--	90
4. Ore/Bulk/Oil	83	80
5. Tanker	22	25
6. Barge Carrier	--	25
TOTAL	300	300

Source: J.A. Higgins and J.J. Garvey, "Merchant Fleets for the Seventies," Naval Engineers Journal, December 1970, p. 36.

According to a study released by Harbridge House, Inc., of Boston, a nationally known management consulting and research firm, foreign flag domination of the U.S. trades will soon be a thing of the past because of U.S.-developed container-ship and barge-carrying systems. Although it is perhaps overly optimistic, the study concluded that the American merchant marine of the future has the potential to become the world leader in developing a fast, door to door, international transportation system.[2] This emphasis on the new high-technology ships seems to indicate that the Bath Iron Works' estimate may be more realistic since it contains a higher number of both container and barge carrier ships. By 1976 the study estimates that the United States will have a modern 424-ship fleet.[3] More conservative estimates predict a modern fleet of about 500 ships by 1980 with a total cargo deadweight of 30 million tons as compared with some 15 million tons in 1970. Before this desired situation can be realized, however, government and industry must develop a national marketing program aimed at increasing the U.S.-flag share of U.S. foreign trade.[4]

Recent Developments. As of 15 January 1971, MARAD had counted 13 preliminary applications for construction subsidy funds involving 33 merchant vessels, of which 28 were OBO carriers, two tankers and three barge ships. Five shipyards

are actively marketing OBO designs approximately 78,000 deadweight tons each.[5] Unfortunately, contracts for the construction of only 12 ships had been signed by the end of 1971, far fewer than the goal of 30 ships per year. MARAD officials now admit that the rate of 30 ships a year for the next ten years was too much to expect, particularly in the shaky economy of the past year. Assistant Commerce Secretary Andrew E. Gibson commented in a recent interview: "We had all hoped to be further down the track than we are at the moment. But I believe most of the start-up problems have been resolved and are behind us."[6]

MARAD no longer talks in terms of building 30 ships a year but rather "the equivalent of" 30 ships a year since many operators now want larger ships that carry heavier cargoes and make a larger profit. Consequently, the old size limits (80,000 deadweight tons) suggested in the original studies have already been scrapped by the Government. The new emphasis will be on larger tankers and cargo container ships with greater capacity rather than on numbers of ships. This fact coupled with the number of construction contracts let to date will undoubtedly mean that the 300 ship goal will have to be revised downward to about 200 new ships by 1980. Using the Bath estimate as a guide and speaking in terms of equivalent ships, the total deadweight tonnage for the new 200 ships will not change significantly

from the 15 million tons originally planned if 300 ships were to be build.

The Government is also reconsidering its ban on subsidized ships picking up foreign cargo in one port abroad and delivering it to another location abroad. Currently such ships must travel back and forth between U.S. and overseas ports.[7] The idea here is to promote construction of 250,000 ton tankers and allow such ships to handle strictly foreign shipments until U.S. ports are ready to take them. At present they cannot enter any ports on the East Coast and only a few on the West Coast.

The most encouraging new shipbuilding development to date was the announcement in February 1972 that the largest commercial shipbuilding order ever placed with an American facility had been approved by MARAD. The package submitted by Maritime Dynamics, Inc., a newly formed corporation, provides for the construction of six giant supertankers at General Dynamics' Quincy Shipyard at a reported cost of over $350 million.[8] These new ships, when constructed, will be used in U.S. foreign trade.

Summary. Recent developments have pointed out that the initial studies done by MARAD on standard ship designs will have to be slightly revised. Specifically the new emphasis is on larger tankers and cargo containers. General

Dynamics' Quincy Shipyard has already received a contract to build six supertankers in the 225,000 ton category.

From all indications the fleet mix presented by Bath Iron Works for 1982 seems to be holding true. The number of container ships required during the next ten years is still uncertain with an estimated range from 22 to 65 ships. The conditions upon which the final number depends will be determined by the continued development of container services on all international trade routes to the extent it has developed on the North Atlantic.[9]

Finally, since MARAD now talks in terms of building "the equivalent of" 30 ships a year, it is apparent that the initial estimates made by Harbridge House, Inc., and others will have to be revised downward by about 100 ships for 1980. The amount of this nation's foreign trade carried in U.S. ships should rise, however, since the new fleet will consist of large, fast, highly mechanized ships. Unfortunately, due to the program's slow start, the Administration's goal of increasing this share to 30% by the mid-seventies is no longer obtainable. From all indications it is still within the realm of reality that this goal can be attained by 1980. The U.S. merchant fleet may finally be on the road to recovery.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions. This study has traced the history and evolution of past U.S. merchant marine legislation and policy from its earliest Colonial beginnings to the present. The U.S. merchant marine has always served its nation well, even in the face of its own physical deterioration and the growing commercial competition from foreign lines.

United States maritime policy in the past has been influenced by reactions to specific threats to the national security. Consequently, the United States has not been able to maintain a strong peacetime fleet. Only the impetus of war has encouraged significant changes in maritime policy and renewed shipbuilding activity. Crash construction of merchant ships in wartime can be avoided only by maintaining a posture of strength in peacetime.

United States maritime policy and legislation have not produced the results envisioned in the Merchant Marine Act of 1936. The construction differential subsidies and other government aid programs have failed to foster, encourage or maintain an adequate and internationally competitive merchant marine. Illustrative of this fact has been the continued decline in the amount of this nation's foreign trade carried in U.S. flagships.

The Nixon plan to revitalize the U.S. merchant marine, resoundingly passed by Congress, will be a giant step toward restoring the nation to the ranks of a first-rate maritime power. This new legislation is a landmark, not only because it modernizes the ship subsidy system, but also because it expands these benefits to previously nonsubsidized operators. These and other inducements make the Merchant Marine Act of 1970 the largest package of incentives ever offered to the maritime industry.

The initial reaction to this new program has been slow but progressively encouraging. The goal of building 300 new ships by 1980 is no longer a reality, but the new emphasis on larger ships will permit the construction of "the equivalent of" 300 ships with a total cargo deadweight of 15 million tons. Still unknown, of course, is the ability of U.S. operators to show that they can increase their share of U.S. foreign trade substantially enough to attract the capital they need to build the new ships.

The prospective fleet will depend heavily upon standardized ship designs and will contain an ever increasing percentage of large containerized carriers and bulk tankers in the 250,000 ton category. The exact numbers vary considerably, but construction should parallel the development of port facilities tailored to their needs.

Recommendations. In order to promote more shipbuilding in American yards and encourage ship operators to seek out more foreign trade, the Government should reconsider its ban on subsidized ships picking up foreign cargo in one port abroad and delivering it to another location abroad. Lifting this ban would not only promote the construction of 250,000 ton and larger ships, but would also place at the disposal of the U.S. Government a formidable fleet of U.S.-flag vessels to be used in event of a national emergency. Although not directly involved in U.S. foreign trade, these ships will have an important mission of ensuring that our flag not vanish from the harbors around the globe.

It is further recommended that government and industry develop a national marketing program aimed at increasing the U.S.-flag share of foreign trade. The new high-technology ships will help increase this share, but a deliberate coordinated selling program will be needed to guarantee success in seeking new markets.

The Government should maintain a flexible posture with regard to the construction-differential subsidies. The plan to reduce the maximum subsidy payment to 35% by 1976 should be abandoned if meeting the lower subsidy goal will make it impossible for shipbuilders to operate at a profit.

Finally, although the Merchant Marine Act of 1970 in its present form has become an impetus to new shipbuilding activity, it should not be allowed to become inflexible. The Act should be under constant review by Congress and MARAD to ensure its success in providing the stimulus so vital to the maintenance of a viable merchant marine.

NOTES

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6. U.S. Maritime Administration, p. 4.

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8. McDowell and Gibbs, p. 21.

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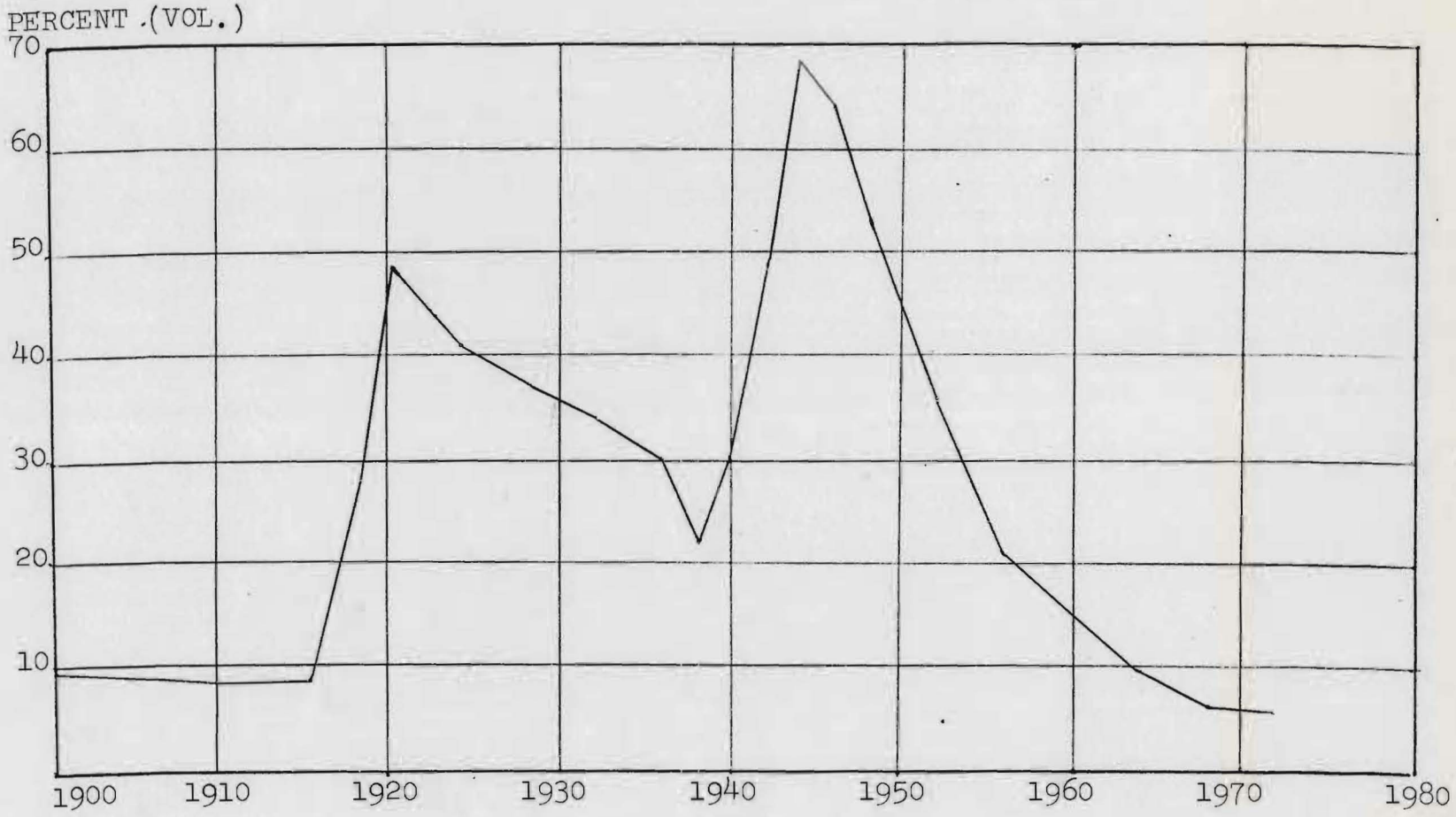
APPENDIX

FIGURE 1

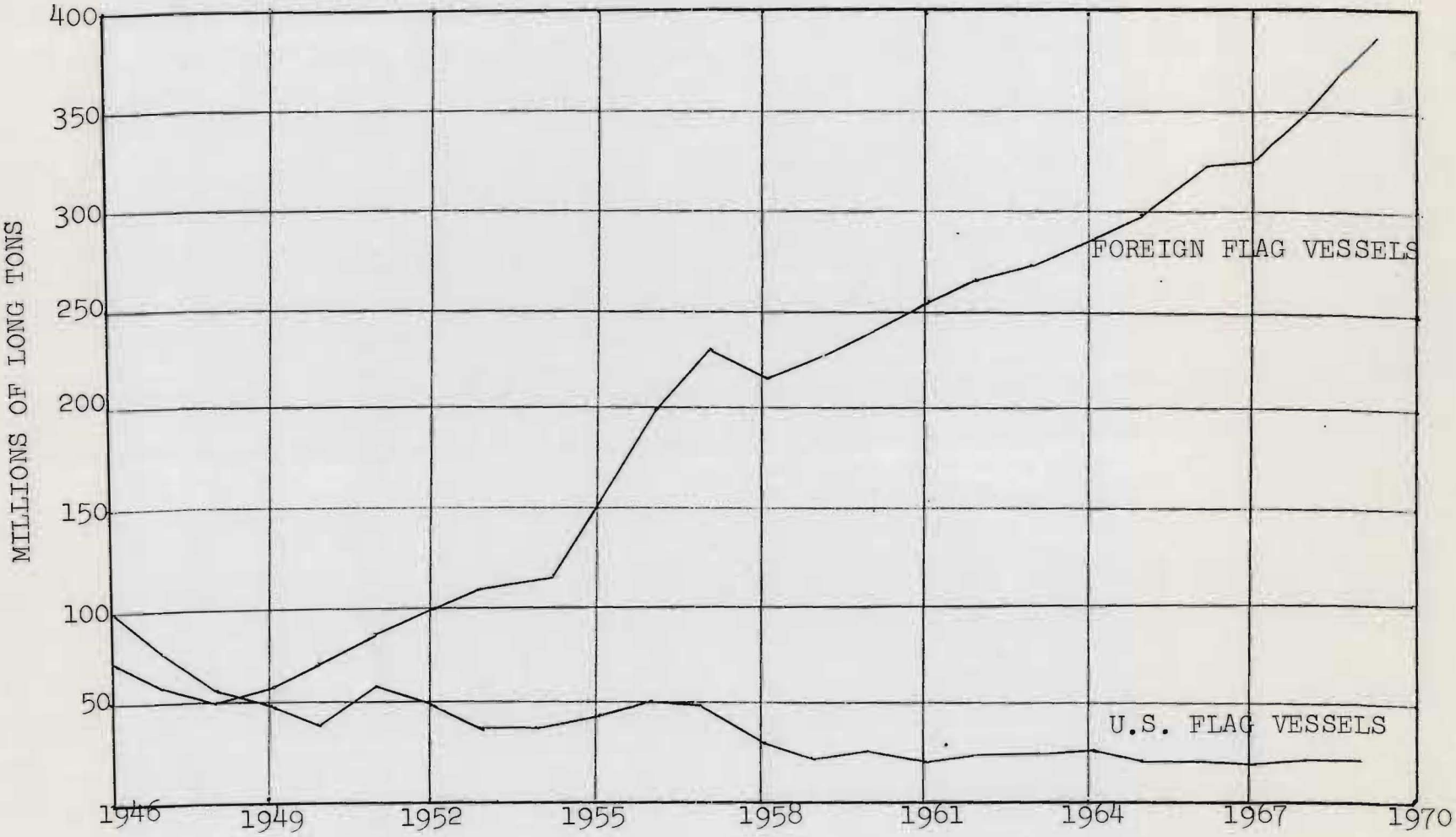
PERCENTAGE OF TOTAL U.S. FOREIGN TRADE CARRIED IN AMERICAN FLAG VESSELS



Source: U.S. Maritime Administration, Changing Patterns in U.S. Trade and Shipping Capacity (Washington: U.S. Govt. Print. Off., 1964), p. 25.

FIGURE 2

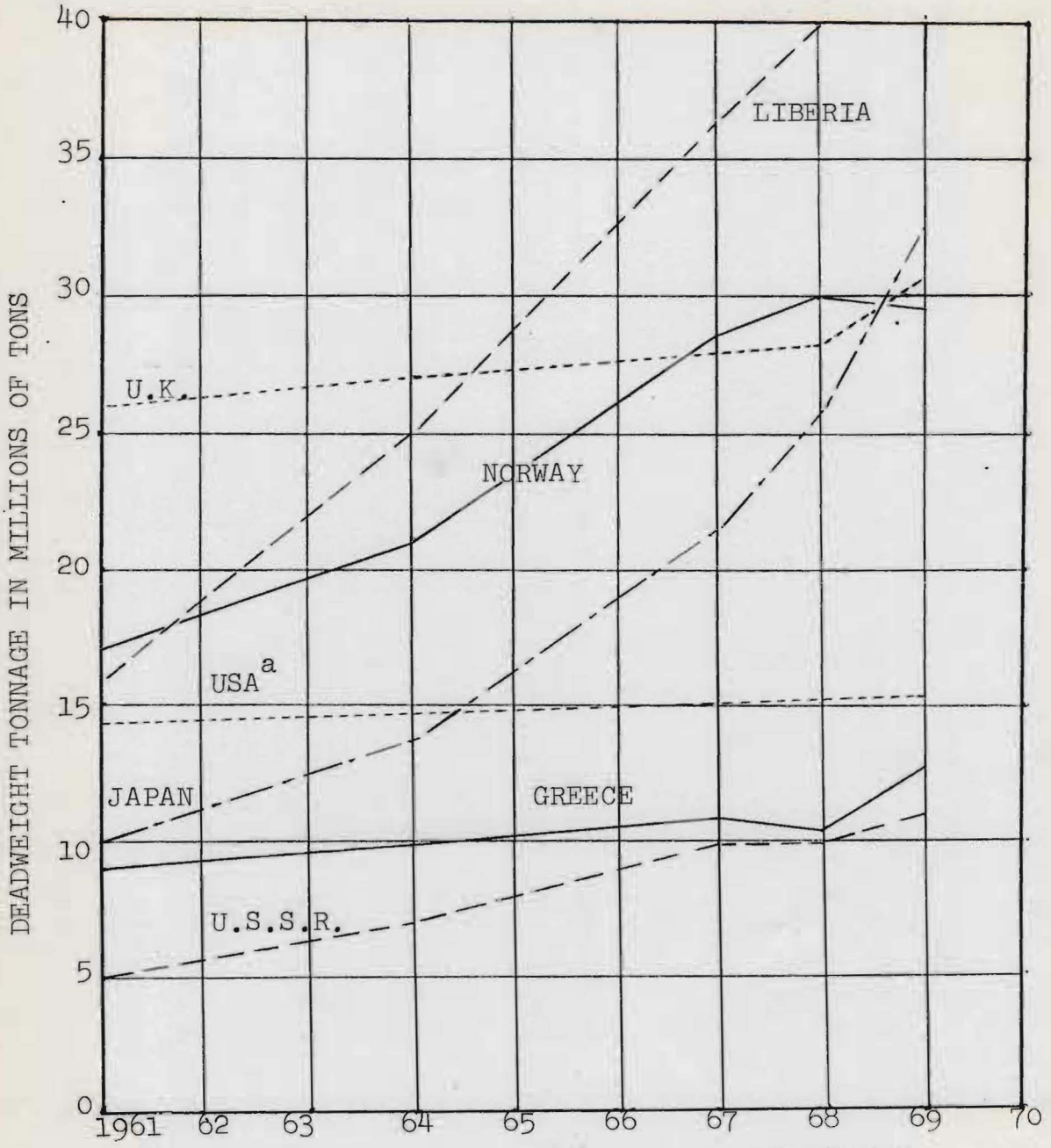
U.S. TOTAL FOREIGN TRADE CARRIED BY U.S. FLAG AND FOREIGN FLAG VESSELS



Source: Earl W. Clark, et al., The U.S. Merchant Marine Today (Washington: Labor Management Maritime Committee, 1970), p. 41.

FIGURE 3

WORLD MERCHANT FLEET GROWTH
(1000 Gross Tons and Over)



[a]Only privately owned U.S. ships are included.

Source: U.S. Maritime Administration, Merchant Fleets of the World (Washington: U.S. Govt. Print. Off., 1961-1970), n.p.